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VOLUME XXXIV SEPTEMBER, 1935 NUMBER 6

RECENT DEVELOPMENT IN MANCHURIA

JOHN R. STEWART
New York City

Manchuria became important in international affairs at the time of the Sino-Japanese War in 1894-95. Since then, Manchuria has come to play an increasingly significant role as the focus of conflicting national interests in the Far East. It has assumed this unenviable role, first because of its position at the meeting-point of the tides of Chinese, Japanese, and Russian expansion and secondly, because of its natural wealth of agricultural and mineral resources.

Since its opening to foreign influence, Manchuria has had a history of rapid economic progress, coupled with frequent international conflict. The most intensive development has been since the turn of the century. Two periods may be roughly discerned. The first lasted from the end of the Russo-Japanese War to the Mukden Incident* of September 18, 1931. The second was inaugurated with the restoration of law and order after the establishment of Manchoukuo.

The record of development during the first period is impressive. Within the space of a bare quarter century, Manchuria was transformed from a backward and relatively undeveloped section of China into a prosperous region contributing significantly to the flow of world trade. Foreign trade, including that with China proper, increased 14-fold and the proportion of Manchurian trade to the total trade of China rose from 12 to 21 per cent. Manchurian soya beans and the by-products oil and cake became staple items in the world's raw material markets, the value of exports of these products increasing 1970 per cent. Dairen grew into one of the leading ports in the Far East, second only to Shanghai in its share of the

* The term "Mukden Incident" is used frequently to describe the series of events, beginning with the seizure of Mukden on the night of September 18, 1931, by which the Japanese army overthrew the existing Chinese government in Manchuria. The term "Manchurian Incident" is also used.

trade of China, while the Fushun coal mines were developed into the largest in the Orient.

During this period, moreover, Manchuria was equipped with an efficient and fairly widespread network of railway communica-

FIG. 1. Manchuria.

tions. Its 3700 miles of railways were in marked contrast to the 5200 miles of line serving the rest of China. This spread of communications was accompanied by a steady increase in agricultural production and in the area of cultivated land. In the decade after 1920, the settlement of new land proceeded at a rate exceeding 1,000,000 acres per annum. Population nearly doubled during this

period, due principally to an extensive immigration from North China which reached a peak of 836,000 in 1927.

This progress occurred during a period of comparative peace and order; but the rate of development was slowed down partly by rivalry between foreign interests, but primarily by the growth of Chinese nationalism. The latter expressed itself in passive resistance to Japanese programs of economic expansion, and, towards the end of the period under review, in purely Chinese projects designed to rival and undermine the Japanese economic structure in Manchuria. To an increasing degree the initiative in economic development was passing to Chinese interests. In particular, the expanding system of Chinese Government railways, based on the new port of Hulutao, was menacing both the profits and the position of the South Manchuria Railway. This growing conflict between Chinese and Japanese interests for control over the economic structure of Manchuria was the underlying economic motive for the Mukden Incident. Subsequent developments saw the complete elimination of Chinese influence.

FIG. 2. A view of the city of Hsinking. This is an important railway center. Courtesy South Manchuria Railway.

Whereas previously the possibilities of Japanese expansion had been restricted, on the one hand, by the position of Russia in North

Manchuria and, on the other, by the active or passive opposition of the Chinese authorities, the outcome of the creation of Manchoukuo has been that the economic life of Manchuria is now completely in Japanese hands. All the resources of this rich region are now open to development along the lines desired by Japan.

The year 1932 was devoted to the restoration of peace and order and to combating the effects of the destructive flood of that year. The following year (1933) saw the inauguration of ambitious schemes of development, accompanied by the substantial investment of Japanese capital. The purpose of this article is to survey

FIG. 3. The open-cut coal mine at Fushun. Courtesy, South Manchuria Railway.

the progress of the past two years, to note the changes introduced in Manchuria's economic life, and to emphasize the basic importance of agriculture in Manchurian development.

FIELDS OF DEVELOPMENT

Outstanding progress has been made in the spread of communications, which has facilitated the restoration of law and order and contributed to general economic development. Air lines now link the principal cities in Manchuria and the road system is being rapidly extended. The most activity, however, has been in railroad unification and construction. All railways, including the North Man-

churia Railway recently purchased from the U. S. S. R., have been brought under the management of the South Manchuria Railway, which operates under contract the former Chinese Government lines and also undertakes all new construction. Under this arrangement, a number of important new railways have been completed, including the Hsinking-Tumen line, giving access to the Japan Sea by way of North Chosen; the Lafa-Harben line, paralleling the southern branch of the North Manchuria Railway; and the Peian-Taheiho line reaching north to the Amur River. Other strategic railways are being constructed in eastern Manchuria, into Jehol, and northwestward into Barga. At the end of 1934, 5030 miles of railway were in operation, including 1300 miles of new lines built during 1933 and 1934. In addition, about 900 miles were under construction.

Industrial development has been stimulated to some extent. Former enterprises have been revived or expanded and a considerable number of new enterprises have been established. According to one survey, by August, 1934, 159 new companies had been established since the Mukden Incident with a capitalization of $191,700,000 at par. Most of these are comparatively small. The largest enterprises are those undertaken by official companies. These include the Showa Iron and Steel Works; the Fushun Oil Shale Plant, which is being expanded to extract fuel oil for the Japanese Navy and gasoline for domestic use; the Manchuria Petroleum Co., which will refine imported crude oil; Manchuria Chemical Industries Ltd., which will export fertilizer to Japan; and the two big public utility mergers, the Manchuria Telephone and Telegraph Co. and the Manchuria Electric Co.

The Showa Iron and Steel Works is the most important enterprise from the point of view of Japan's needs. This company absorbed the existing Anshan Iron Works and is constructing a steel plant which is expected to begin production in the summer of 1935. Revised plans envisage the production of 500,000 tons of steel, but so far only pig iron has been made. Output has steadily expanded, as shown by the following figures expressed in metric tons.

	Anshan	*Total for Manchuria*
1925	89,686	139,686
1927	203,445	253,845
1929	210,443	286,743
1930	288,433	348,034
1931	269,494	335,114
1932	287,124	368,181
1933	317,573	433,523

This expanding production has enabled Manchuria to supplant British India as the principal source of Japanese imports of pig iron. Between 1931 and 1933 Manchuria's share further rose from 62 to 71 per cent.

Industry has never been very important in Manchuria, for the economic life of the country has been based upon the production and export of raw materials and food-stuffs. The leading industries continue to be those processing raw materials for export or supplying local needs, such as bean-oil refining, flour-milling, brewing, silk reeling and the production of pig iron and industrial salt.

With regard to the development of mineral resources, no particular progress has been made. In addition to the enlargement of the iron works and the oil shale plant, two official companies have been formed. One is the Manchuria Gold Mining Co., to exploit the gold fields of North Manchuria and the other is the Manchurian Collieries Co., to amalgamate the former Chinese coal mines. The principal coal output, however, continues to come from the old established Fushun mine operated by the South Manchuria Railway.

As oustanding as the spread of communications has been the development of Manchoukuo's foreign trade. Following a decline in 1932, total trade rose to its highest peak in 1933, increasing 59.5 per cent over the previous year. Further progress was made during 1934.

	Exports	*Imports*	*Total*	*Balance*
1929	425.7	330.0	755.2	+ 96.1
1930	396.7	306.4	703.1	+ 90.4
1931	463.9	218.9	692.8	+254.9
1932	395.0	193.0	588.0	+202.0
1933	423.3	514.5	937.9	— 91.2
1934	448.4	593.6	1042.0	—145.2

(Unit 1,000,000 Manchoukuo yuan*)

It will be seen that the recent rise in trade has been due mainly to sharply increased imports, which is a reflection of construction activities in Manchoukuo and the substantial investment of Japanese capital. On the other hand, the export trade has made little improvement, and as a result, 1933 showed an adverse trade balance for the first time since 1919. The adverse balance became even larger in 1934, indicating the continued investment of Japanese capital. Naturally, Japan's share of Manchoukuo's trade has in-

* The Manchoukuo yuan is practically the same as the Haikwan tael, the unit used by the Chinese Customs. The yuan consists of 23.91 grams of pure silver and being a silver currency, it has, in practice, fluctuated with the value of the Chinese silver dollar.

creased considerably. Its share of total imports rose from 39.9 per cent in 1931 to 64.6 per cent in 1934, and of exports from 33.6 per cent to 38.4 per cent.

CHANGING GEOGRAPHIC ADJUSTMENTS

So important a political development as the severing of four provinces from China and the creation of an "independent" Manchoukuo completely dominated by Japan could not take place without bringing certain changes in the economic life of Manchuria. It affords an excellent example of how political changes can influence and modify geographic adjustments and the trend of development.

First is the protection of Mongol grazing lands against further Chinese encroachment. Prior to the Mukden Incident, the accelerating spread of Chinese agricultural settlement had proceeded mainly to the north and west. The latter involved increasing encroachment upon the fertile grasslands of Eastern Inner Mongolia, with resulting Mongol discontent. Under the new regime, however, the Mongols have been given special privileges and Hsingan Province has been created for their protection. Westward expansion has therefore been checked considerably short of the geographic limit of possible cultivation and the direction of settlement is now to the north and east.

Here, in the Valleys of the Nonni, the Amur, the Sungari, the Ussuri and other rivers, are to be found the principal reserves of uncultivated land in Manchuria, estimated as high as 45,000,000 acres, or somewhat in excess of the present cultivated area. The best agricultural lands are already fairly densely settled, but important development is possible in these northern and eastern areas. New railways are tapping these undeveloped sections and river navigation is being improved.

With extensive new lands available for settlement, it is unfortunate that immigration from North China has been greatly reduced, as seen in the following figures.

	Arrivals	*Departures*	*Net Immigration*
1925	532,770	237,746	295,024
1927	1,178,254	341,959	836,295
1929	1,046,271	621,897	424,374
1930	810,000	560,000	250,000
1931	467,402	461,339	6,063
1932	414,034	498,783	—84,749
1933	618,962	453,746	165,216
1934	400,000	200,000	200,000

(1934 estimated)

The decline from the 1927 peak was accelerated by the Mukden Incident. Immigration has since revived to some extent, but under the strict control of the Government. Without a considerable influx of Chinese settlers, the development of new areas being opened will be handicapped, for no large-scale immigration from Japan is expected because of high costs of settlement and adverse climatic conditions. In addition, the seasonal movement of farm and construction labor from North China has been for decades an important factor in Manchuria's economic life.

Efforts are being made by the Manchoukuo Government to diversify agriculture in order to lessen dependence on soya beans, which is the principal crop and which has regularly supplied more than half the value of total exports from Manchuria. Bean production and the proportion of the cultivated area devoted to beans steadily increased for a decade until the world depression and reduced foreign demand brought extremely low prices and a heavy carry-over. In its place, the Government is fostering livestock raising and special crops such as tobacco, sugar beets, peanuts, hemp, flax, and rice. Particular emphasis is being placed on wheat in North Manchuria and cotton in the South. The transfer of bean acreage to wheat is feasible as wheat has long been an important crop in North Manchuria. In addition, this will improve the balance of trade and also stimulate flour-milling, since wheat flour is one of the principal imports, accounting for 14 per cent of the value of 1933 imports. In the revised Manchoukuo tariff of November 1934, wheat and flour were taxed for the first time.

Cotton has been grown for many years in some localities in South Manchuria, but production has been small and inadequate even for Manchuria's needs. Recently, government subsidies have been made available, experiment stations established and new varieties of American cotton introduced. The ten-year Government program calls for the increase of cotton acreage to 735,000 acres and of annual output to 199,500,000 pounds. Progress is already being made, for 1933 production is reported at 96,000,000 pounds, a three-fold increase over 1930.

The establishment of Manchoukuo has brought several changes in old-established trade routes. Whereas North China formerly received most of the trade of Jehol Province, this has now been diverted eastward to South Manchuria over the new roads that have been constructed. This trend of Mongolian trade toward Manchoukuo will be further stimulated by the completion of the rail-

ways being built into Jehol and Barga. Vladivostok was formerly an important export port for North Manchurian products. However, this trade has been reduced to a small volume and an alternative route has been developed by way of the strategic Hsinking-Tumen Railway to the North Chosen port of Rashin. The network of new lines based on Rashin being built in eastern Manchuria will make Rashin the outlet for most of eastern and northern Manchuria.

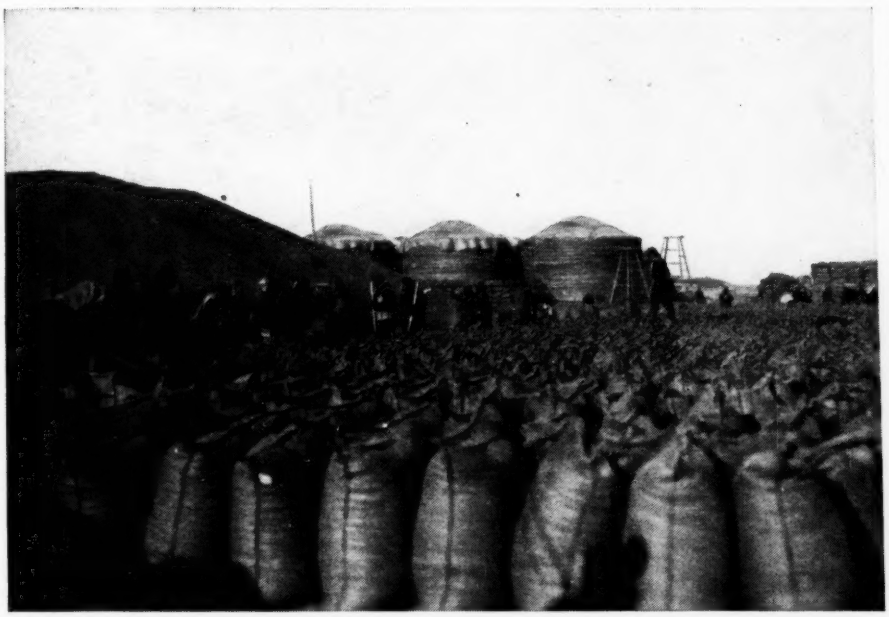

FIG. 4. Packing soya beans in gunny sacks at Mankou, a town on the western section of the North Manchuria Railway (formerly C.E.R.). Courtesy, South Manchuria Railway.

THE BASIC IMPORTANCE OF AGRICULTURE

In the past two years important progress has undoubtedly been made. Visitors to Manchoukuo will be impressed by the numerous signs of development, which include the spread of railways and other communications, the growth of urban centers, the construction of new factories, and the building of the new capital at Hsinking.

However, an analysis of the nature of recent development will reveal that it consists almost entirely of the building of a new political structure and of the rounding out of Manchuria's economic framework of communications, public utilities, urban centers, and

banking and commercial organizations. To a large extent it has been made possible by the substantial investment of Japanese capital. Definite figures are not available, but new investment since the advent of Manchoukuo has been at least $249,000,000 at par. This estimate takes account of the several hundred million dollars capitalization of new companies, the increase in South Manchuria Railway capital from $219,000,000 to $398,000,000 and three loans to the Manchoukuo Government aggregating $30,000,000 at par.

Furthermore, in this development the government has played a predominant role. Practically all the new projects have been undertaken by the South Manchuria Railway, by official companies, or by the Manchoukuo Government. These agencies are all under the control of the Japanese Army, which has directed Manchurian development along lines satisfactory for military purposes. Railways are the monopoly of the South Manchuria Railway, while other communications, mining enterprises, and industries affecting the national defense have been entrusted to official companies. Private capital has, therefore, had little choice but to invest in the official companies, for the opportunities of free private enterprise have been restricted to a narrow group of miscellaneous industries.

While this economic framework is important, its successful functioning and the earning of a return on the substantial new investment depend upon the prosperity of agriculture, the maintenance of the export trade in cereals and beans, and the development of sound industries based upon natural resources. The latter is of the least importance, even tho Manchuria possesses valuable mineral and forest resources. Manchuria is primarily a producer of raw materials and foodstuffs, and its role in the Manchoukuo-Japan economic bloc will not be the development of industries to compete with those of Japan. It is perhaps significant that at the close of 1934 the shares of 15 out of 24 leading industrial companies (exclusive of the South Manchuria Railway) were selling below par and that 6 declared no dividends in 1934.

Manchuria's basic resource lies in its farm land, and the dominant activity is therefore agriculture. The sound basis of the marked development during the past quarter-century was the growth of farm production and the steady expansion of the export trade in soya beans. Future development lies in the same direction and will consist largely of the opening of new lands in the north and east. As in the past, this will result from the interaction of three factors: first, the opening of new lands thru railway construction, second,

the influx of Chinese settlers to farm those lands, and third, the development of foreign markets for the enlarged output. The Government is providing the first and can stimulate the second, but the third is the doubtful factor.

Consequently, the maintenance and expansion of the export trade in beans and cereals are of primary importance to the future development of Manchuria. They also have a direct bearing on the balance of trade. In the past two years, imports have greatly in-

FIG. 5. Salt fields and piles of crude salt at Port Arthur. Courtesy, South Manchuria Railway.

creased as the result of large-scale investment in development work, but the export trade has advanced very little and is still below the pre-Mukden-Incident level. This adverse balance cannot continue indefinitely. Obviously, exports must be considerably increased if the import trade is not to decline to a commensurate level and if a return is to be earned on the substantial Japanese investment in Manchuria. Increased exports can come from a larger foreign demand for Manchurian products together with a closer development of the Manchoukuo-Japan economic bloc. The opportunities of the latter, however, are limited by the facts (1) that Manchuria does not produce in important quantities the raw materials most needed by Japanese industry, namely raw cotton, wool, iron ore, oil and

tropical products and (2) that certain Manchurian products compete with domestic industries in Japan.

The future of Manchurian development is, therefore, closely bound up with the export trade in cereals, beans and other farm products. The soya bean is the basic crop, for it occupies the largest percentage of cultivated land, about 80 per cent of the crop is exported, and soya beans, with the by-products oil and cake, supply over half of the total exports. Physical volume of bean exports has held up well, but prices reached a low level in 1933-34. Increased shipments to Japan and Europe have on the whole compensated for the decline in Chinese purchases.

On the other hand, the production of principal crops has fallen off considerably in recent years, due to floods in 1932 and 1934, bandit disturbances, and restriction of acreage as the result of low prices. Estimated figures for 1934 show an average reduction of 20 per cent in farm production, reaching as high as 34 per cent in the case of millet and 22 per cent in soya beans.

	1934 Forecast	*1933 Estimate*	*Reduction*
Soya beans	3599	4901	1001
Kaoliang	3588	4021	433
Millet	2093	4184	1091
Maize	1609	1758	149
Wheat	651	863	212
Other cereals	1299	1803	504

(Thousands of metric tons)

The soundness of Japanese development in Manchuria and the prosperity of the large Chinese farming population are directly dependent upon farm production and the export trade in beans and cereals. To date, extensive Japanese development work in communications, industry and political reconstruction has been accompanied by crop reduction and an unprogressive export trade still below the pre-Mukden-Incident volume. However, it should be pointed out, in conclusion, that Japan's interests in Manchuria have by no means been restricted solely to economic considerations and the importance of the Japanese position cannot be judged on economic values alone. Military, strategic, and political considerations are often the more important, which is the explanation for many Japanese activities in Manchuria.

ST. THOMAS CARRIES ITS COAL

EARL B. SHAW
State Teachers College, Worcester, Massachusetts

The evolution of power equipment and energy sources has gone thru several successive stages in the history of mankind. Primitive man used only his brawn to perform tasks, but as he rose in the scale of civilization he utilized animals, wind, water, and fuel to aid in his work. Yet progress in the use of modern forms of energy is not uniform thruout the world, and several places still rely on human energy for the heaviest labor. One of these places, a part of our highly mechanized United States, is the island of St. Thomas (Fig. 1), a northeastern outpost of the Caribbean Sea.

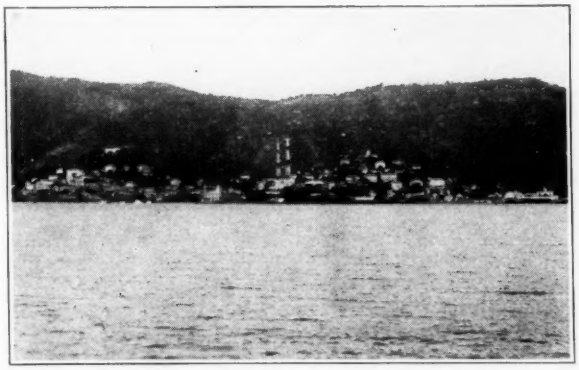

FIG. 1. St. Thomas harbor with the city in the background. Favored with a deep spacious almost landlocked harbor, a strategic location, and lying in the lee of a mountain backbone, St. Thomas is one of the best known ports in the Caribbean.

For many years after steamships began to replace sailing vessels in handling the world's commerce, man power alone was used in St. Thomas to deliver coal into the ships' bunkers. Now two electric cranes (Fig. 2) tower above the wharf and have taken part of the native's job. In time these emblems of the machine age may supplant the colored worker entirely; yet as long as a large number of ships have bunkers which are not accessible to mechanical loaders, the Negro will be needed to handle the task.

THE COAL WORKERS AND THEIR JOB

St. Thomas coal carriers are all Negroes, descendants of Guinea Coast slaves who were brought in to cultivate the cane fields in colonial days. In that early period colored folks toiled on the rugged hills with hoe and spade, and plantation owners were able to gather large profits from crude methods of cane production because of the high European sugar prices. Later when beet sugar entered the

market and tropical areas with more favourable topography and rainfall started commercial production, St. Thomas gave up the sugar industry. Many laborers then turned from field work to industries of the sea—to shipping and coaling. But these occupations have declined also. St. Thomas is no longer the busy entrepôt of sailing ship days. The wireless, radio, fuel oil, an increasing development in other islands, the rise of competing ports—these and other causes are responsible for the change. Many laborers have emigrated, for fewer are needed as stevedores and the fueling business is depending more and more on machinery. Yet there are still about one hundred and fifty Negroes who assemble at the West India Company's dock, the only firm which handles vessel coaling, whenever a ship calls for coal.

FIG. 2. A partnership. This man and woman work together. He fills a basket and carries it towards the ship until he meets her returning with an empty. After helping her hoist the load on her head he returns to the coal pile to fill another basket.

As in the days of the old sugar industry, women share the work with the men (Figs. 3 and 4), the latter numbering about sixty per cent of the working force and the former about forty per cent. No age restrictions are in force; young men and women carry baskets of coal along with their elders, who thru many years of service have walked hundreds of miles from coal pile to vessel, and from vessel to coal pile.

Working hours and days are quite irregular. Like a doctor the carriers are subject to call at any time: at daybreak, noon, evening or midnight; on Sunday, holiday or week day a ship's shrill whistle announces the vessel's needs and the Negroes respond immediately regardless of place, time or weather. They drop whatever they are doing the minute they hear the siren, and within a few moments after the whistle has blown

a stream of coal carriers may be seen walking or running along the streets on their way to the dock, more than a mile from the center of the port city.

Even the hour of worship does not keep the worker from his task of coaling the waiting vessel. The writer attended the Moravian church one Sunday morning while at St. Thomas and after the services the minister remarked that several of his congregation were coaling a German steamer then in port. For most laborers in Continental United States an absence from church on Sunday morning is no hardship. But for most St. Thomians, missing worship is not considered lightly. The colored folks take their religion seriously and it forms one of their main emotional outlets.

FIG. 3. Two women coal carriers. Most of the women workers, as well as the men, smoke pipes. One gets a good view of the cotta or head pad from this close-up.

As soon as the workers assemble for coaling, each secures a stout basket, like an old-fashioned clothes basket, and takes it over to the coal heap not far from the dock. Standing by the big coal pile are shovelers ready for the signal to start loading the vessel. The shoveler carries no coal, but his job is to fill baskets and to help place them on the heads of the group of workers from whom he receives a share of the earnings. At the sound of the whistle to begin, the line of Negroes with the coal perched high on their heads starts toward the gang plank.

The coaling of a steamer is a sight worth seeing. At night it is highly picturesque. The coals glint and shine in the glare of the lights. The dark figures of the women, many of them lithe and shapely, move along at a rapid pace, their hips swaying from side to side beneath the weight of their burden. Snatches of song break from the lips of the workers mingling into a medley of sound with the splash of the waves against the wharf and the escape of steam

from the huge vessel alongside. Shouts of command are issued here and there and the Negroes respond with feverish haste. The whole scene is unique and full of interest—an actual drama that must be seen and heard to be understood and appreciated.

Now and then as the Negroes run along from coal pile to vessel one is beckoned out of the line and his basket is weighed. He runs back in and gains a place, and soon another is signaled to drop out. The unlucky laborer dislikes the delay, but ship and fuel company must know the amount of coal moving on board and they check the weight of chance baskets instead of weighing them all. Yet another check is made. Each time a coal carrier starts towards the vessel with his loaded basket, he must pass the tally keeper's stand, where he receives a token issued by the company and worth a cent and a half to the worker. As the number of tokens turned over to the tally keeper by the company corresponds to the number of bushels of coal ordered by the ship, it follows that the steamer's order has been filled whenever all the chips have been paid to the laborers.

The coaling of a vessel seldom continues hour after hour without delay. Various interruptions occur and at such times workers gather around in groups, visiting and joking to gain rest and relaxation from the strenuous work. Some eat of a hastily prepared lunch which they have brought with them. Still others purchase for a few cents fruit or candy from the native vendors. These Negroes meet every vessel and sell papayas, bananas and other local fruit, as well as curios made from local turtle shell and shark bones, to passengers.

When the vessel is loaded the workers take their tokens to the office and exchange them for cash. The value of the token varies from time to time with changing conditions. For several years prior to 1916 the workers received but one cent a basket of coal delivered to the vessel's bunkers. In that year a devastating hurricane struck St. Thomas and demolished the electric cranes. The loss of this equipment made the company entirely dependent upon native labor for some time, and the workers sensing their advantage forced a wage agreement calling for two cents a basket. This situation is another proof of the old adage that "It is an ill wind that blows nobody good" and also is a good illustration of the influence of geography on economic conditions.

The amount a Negro is able to earn on each job depends not only on the basket wage, but upon the quantity of coal taken on, the amount of loading allotted to the electric cranes and the speed with

which the colored man works. On some vessels the worker's total reaches as high as sixty baskets or more. Again, on the more modern ships more of the coal bunkers are accessible to the mechanical loaders and the coaling of these boats necessitates less man power. However, the company employs the workers on both modern and old style ships, partly because the natives refuse to work at all if their tasks are confined to ships with inaccessible bins, and partly because the employers wish to provide as much work as possible for the surplus labor at St. Thomas.

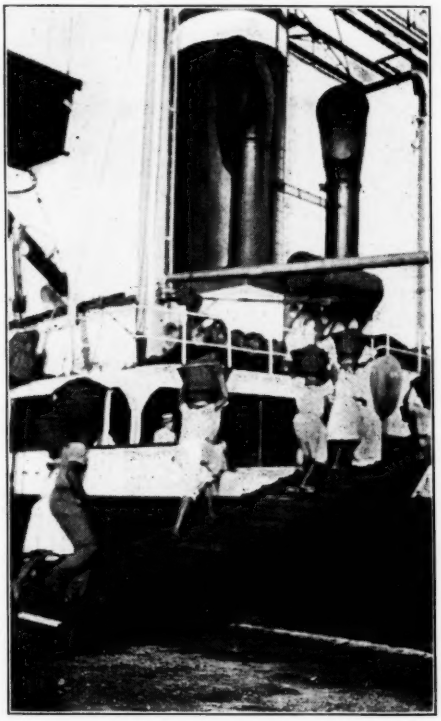

FIG. 4. Coal carriers going up the gang plank.

There is no question that the piece-work system and the amount of unemployment now existing spur the worker to his utmost speed. He tries to carry as many baskets as possible and no small amount of friendly rivalry takes place. He fights for the best place in line, runs ahead of another when possible, strives for the most accessible bunker, and trots back from vessel to coal heap. One is surprised to see so much ambition in the tropics, surprised to see the speed with which the Negroes move and the cleverness with which they balance the heavy baskets of coal on their heads (each basket weighs approximately 80 pounds). The cotta provides more than a little help in steadying and easing the load. This head pad is made out of burlap and is quite different from other turban types of native headgear both in style and material.

The Negro considers the head load easier than methods of carrying which prevail in the temperate zone. There must be some true basis for this belief for this manner of transport is characteristic of many places in the tropics not only for coal but for other burdens as well. A story is told in St. Thomas which will illustrate the consistency with which the Negroes employ the head load. The wife of

a navy officer sent her colored servant to a neighbor to borrow a few sheets of writing paper. The servant returned with the paper on her head, a large stone placed on top to keep the trade winds from blowing the parcel away. Regardless of the load, this mixture of balancing and carrying is effective, convenient, and graceful and natives trained from childhood find it well adapted to their tasks.

The Clothing of the Workers

Altho the Negroes use large burlap pads, sometimes called cottas, to ease the head load, the clothing they wear is not burdensome. Dresses are light in color and light in weight. Barefooted and barelegged, with knee-length skirts generally of white, the women workers find as little hindrance to a free and easy stride as the short-skirted tennis players at Forest Hills, New York. What matters if the work is dirty and the atmosphere filled with coal dust. White is the coolest color in the tropics and a little application of water, rubbing and maran—an indigenous plant used for soap—will make the coal worker's outfit clean and bright again. Moreover, an apron is usually worn over the skirt and not only provides some protection from the grimy coal, but the pockets are a good place for the tokens given out by the tally-keeper. The upper part of the dress is equally as cool as the skirt. Sleeves are short and no tight-fitting waist interferes with the eighty-pound load. Furthermore, seldom is a bandana kerchief worn around the throat. This popular St. Thomas neck-piece would bring small comfort and, besides, the big straw basket and wide hat shield not only neck but head from the high tropical sun.

The clothing of the men workers is also well adapted to job and climate. They do not wear white as do many of the women, but usually go barefooted and wear light roomy trousers or overalls and sleeveless shirts. Comfort is uppermost on this job and clothes are worn to satisfy the demands of propriety and to a lesser extent for protection against heat—not against cold as is customary in the higher latitudes.

The Source of St. Thomas Coal

The port of St. Thomas does not have the advantage of some of the world's important coaling ports in tapping coal fields within the immediate hinterland. There is no good coal mining section a short distance from town as there is at Durban, South Africa; no Appalachian field close by as in Norfolk, Virginia. In fact, St. Thomas

has no mineral resources whatever and must import mine products from other areas more geologically favored.

Fluctuations in exchange dictate to a considerable extent the source of St. Thomas coal. When the British pound "slid off" and the American dollar remained firm, British coal found a ready market in the famous Caribbean port. But recently, with the dollar "slipping" and the pound rising, Appalachian coal fills the bunkers of many ships which fuel at St. Thomas.

Yet not much of the coal is hauled in American bottoms, for Uncle Sam's shipping laws are more lenient to the Virgin Islands than to Puerto Rico forty miles to the west. Puerto Rico must obey the provisions of the coastwise shipping regulations. In other words American boats have no competition from foreign ships in coastwise trade with Puerto Rico. St. Thomas, on the other hand, can pit the foreign steamer against the American boat and obtain a very cheap rate on coal shipments from continental United States. St. Thomas pays no premium to build up the American merchant marine, and this gives an advantage over San Juan, for instance, not only on coal but on certain other commodities as well.

THE FUTURE OF ST. THOMAS COAL CARRYING

The future of St. Thomas coal carrying depends on several factors. Insofar as strategic location and a good harbor are concerned, St. Thomas laborers have nothing to fear. Situated near the outer rim of the Antilles, this Caribbean keystone is on a direct route from Europe to the West Indian region and is near two of the deep inter-island passages, the Anegada Passage a few miles to the east and the Virgin Passage a few miles to the west. The port has the same locational advantages which made it a rendezvous for pirates for years after its discovery—the same focal position which made it a meeting place for many of the treasure and spice ships in the days of Spanish dominance. Moreover, St. Thomas was purchased by the United States primarily for a naval base from which to wage war on German submarines and for a guardian station of the Panama Canal. For years after the Great War the Navy ruled the island and government boats as well as commercial steamers docked for fuel. It is easily possible that the Navy group will again return and St. Thomas become a Caribbean naval station in fact once more.

But scientific advances in fuel and loading may endanger the coal carrier's job in spite of the port's many advantages as a coaling station. Oil burning steamers have come to stay and more and

more coal burning boats are being fitted for mechanical loading. These are the real hazards threatening the native's grimy task. Already the Negro must supplement the small income from coal carrying with whatever he can earn at other types of manual labor. Some of the women make extra money by washing clothes. Other colored folks find short jobs as stevedores. Still others tend gardens which provide vegetables to add to the major diet of fish and fungi (a food made of several ingredients, the largest proportion being corn meal). The government is encouraging gardening with a homestead plan whereby families may, with little effort, obtain a plot of ground on which to raise truck crops and fruit. Moreover, a small start is being made in handwork industries similar to those which have become so important in Puerto Rico. Thus federal attempts are being made to help the coal worker, because other means of making a livelihood must be sought if his job of fueling declines. How many years longer St. Thomas Negroes will carry the heavy baskets up the gang plank is hard to predict; probably not long, for loading by crane is cheaper and faster than fueling by hand. Undoubtedly, when steam vessels are fitted for oil burning or have coal bunkers all built for mechanical loading, the picturesque coal carriers of St. Thomas will give way to the machine.

GEOGRAPHY IN THE ELEMENTARY SCHOOL AS REVEALED IN TEXTBOOKS

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The two-book, two-cycle course in geography appeared definitely in the American school system in 1866 with the publication of a series of geographies entitled Primary Geography and Common School Geography. The table of contents of the first book was an epitome of the contents of the second book. For more than sixty years, geography textbooks were prepared on the two-book, two-cycle plan. Each of the two books covered the geography of the world in essentially the same order with the same organization of subject-matter. The second book of each series was larger than the first book and contained more pictures and maps and a larger amount of descriptive matter.

In the 1920's, teachers, authors, and publishers endeavored to relieve the repetition involved in the two-cycle plan by the use of the one-cycle plan of organization and presentation. The one-cycle plan provides a comprehensive treatment of each region, because the area is studied only once during the period of the elementary school, and not twice, as in the two-cycle plan. The one-cycle plan, strictly applied, gave an extended study of the United States and North America early in the pupil's study of geography. However, the plan did not give pupils the opportunity of making a geographic survey of the United States from a more advanced point of view at a time when they could relate the United States in proper perspective to the rest of the world. The first volume to appear in the one-cycle plan of organization bears the copyright date 1924. The fourth volume of this series was published in 1929.

The one-cycle plan has been modified in the majority of recent geography textbooks by completing the one-cycle in three volumes, and devoting the fourth volume to a survey of world geography by a study of the United States in its relation to the rest of the world. This more advanced presentation is in no sense a repetition or a review of the earlier volumes of the series. The organization and treatment are on a more advanced level suited to the ability of junior high school and upper grade pupils. These pupils view the United States, not as beginners in the study of regional geography, but as experienced students capable of seeing the United States in relation to any other part of the world.

The first volume of a series of geographies prepared on the modified one-cycle plan bears the copyright date 1928. The fourth volume of this series was published in 1930.

In recent years, new series of geography textbooks have appeared in rapid succession. Nine or ten new series have been published during the past ten years. Most of them have adopted the modified one-cycle plan of organization and treatment. Each series consists of no less than four volumes; a few series have five volumes.

Home Geography is left for the development of the teacher, since a textbook for general use cannot deal with the local geographic problems.

A five-year course in geography on the modified one-cycle plan consists of the five following units: Home Geography; World Geography; Western Continents; Eastern Continents; The United States in Its World Relations.

An analysis of the subject-matter suitable for these one-year units shows that the repetition of material common to the two-book, two-cycle plan finds no place in the modified one-cycle plan. This five-year course in geography may be assigued to grades 3 to 7, inclusive, or to grades 4 to 8, inclusive.

HOME GEOGRAPHY

In recent years, increased emphasis has been given to the aim of education as a means of training for citizenship. In acquainting pupils with the factors entering into good citizenship, pupils have had their attention directed to the activities carried on in the home community. These studies of social, political, or economic nature in a community, need, as a foundation for understanding the special conditions of the community, a broader knowledge of the geographic factors involved.

Home Geography developed in third grade or fourth grade offers an opportunity to learn about the common, everyday activities of the home community. An understanding of the home region and its relation to more distant regions brings to the children information of permanent value, not only for school purposes, but for use thruout life. The geographic factors of the home locality and their relation to the ordinary activities of the community illustrate the broader aspects of the geography of the world.

A simple observational study of weather conditions of the home locality at selected periods of the year gives an appreciation of a universal geographic factor, climate.

An analysis of the transportation system and the means of communication in the home town and its environs is valuable in interpreting the railroad and other carrying systems, and also the telegraph, telephone, and mail service of our own and foreign lands. These local studies, carried on under the skillful direction of a well prepared teacher, provide actual experiences that make real to pupils many events of world interest.

A study of the real activities that take place on a farm and in a dairy in the neighborhood enables pupils to interpret similar activities the world over as they study distant lands thru pictures and descriptive reading.

A study of the common foods used in the home, those produced in the locality, and those shipped from distant regions, emphasizes the importance of foods and gives pupils an idea of well-being which results from the friendly co-operation among many people in many lands.

A study of the topics of Home Geography provides material for use in oral and written composition, as a part of the geography lesson or of the language lesson. A primary supervisor recommended that the lessons on home geography be followed by the language lesson, so that the interesting information of the geography lesson could be used by the pupils in language exercises.

The study of the path of the sun across the sky at intervals during the year, and the learning of directions in space from observations of the sun and shadows at different times of day, give a knowledge of directions that avoids confusion of thought concerning directions as one travels.

A study of Home Geography thus gives concrete knowledge of many topics of immediate value and interest to pupils, and forms a foundation for later study and experiences.

WORLD GEOGRAPHY

International understanding has become one of the goals of instruction in the schools. Geography is an effective aid in carring out this aim in education. Geography deals with the lands and the peoples of the world as they are today. Pupils of fourth or fifth grade are eager to learn about children of other lands, the natural conditions under which other children live, and the manner in which they secure food and clothing and shelter and education.

World Geography for these early grades is well presented as a series of journey lessons to selected regions of the world. In these

selected regions people meet varied conditions under which a livelihood is to be obtained. With some knowledge of their home locality, pupils are ready to appreciate the contrasts presented as they visit children in many lands thruout the world.

Nearly all of the recent series of geographies devote the first volume to this first glimpse of the world. The regions selected for special study are similar in the different textbooks. The Eskimos are the typical inhabitants of the Far North. The Negroes of Central Africa are typical of the hot wet lands. The Nomads of the desert are types of people in the hot, dry lands. Switzerland furnishes a most interesting type of mountain life, and Netherlands is commonly chosen for a study of a lowland country. Norway supplies examples of life on a rugged coast. Japan and China indicate how industrious people use every available area of crop land. Australia, South Africa, and Argentina are visited to appreciate the seasonal contrast of the southern hemisphere.

This world view gives to pupils some understanding of the variety of natural conditions and of human activities that exist in the world today. Pupils see and appreciate how much alike people are in the essentials of daily life and how different the natural conditions are under which people live. The thoughtful teacher will endeavor to develop in pupils an understanding that everywhere people are making the best use possible of their home resources to furnish the comforts and luxuries of life. This year of geography work may be most fruitful in the school-life experiences of the children. These studies should develop wholesome attitudes toward all people and an appreciation of the efforts put forth to obtain as satisfactory a living as possible under the natural conditions in which people make their homes.

The titles of some of the textbooks prepared for this year's work are: *Home Life in Far Away Lands; Journeys in Distant Lands; Journeys Through Our World Today; World Folks; The World and Its People; People of Other Lands; Our Neighbors Near and Far; Home Lands and Other Lands.*

WESTERN CONTINENTS

The textbooks dealing with the Western Continents bear various titles, among them: *Western Hemisphere; The Americas; American Lands and People; Our Country and American Neighbors; North and South America; Our Home State and the New World.* This work introduces pupils to the study of regional geography which is to

continue for two years. The home continent and the home country are the natural starting point for this study. About one-half of the year is given to the study of the United States, one-fourth to the other countries of North America, and one-fourth to South America.

The work of the two previous years has acquainted pupils with geographic facts and relationships found in the home region and in strongly contrasted regions selected from various parts of the world. Pupils now approach the study of continental areas in some detail. During two years they study the continental areas and compare the continents and their inhabitants with the home continent and with each other. This two years' study constitutes a one-cycle organization and presentation of the regional geography of the world. Each continent and its countries are treated as comprehensively as the allotted time and the ability of pupils permit. There is no repetition of subject matter during these two years, but comparison of continent with continent; country with country; region with region; serves to keep the accumulating information in organized form and adds strength and permanence to the pupils' knowledge.

In the study of the United States, groups of states constituting a large natural area are usually treated as the larger units of presentation. The region in which the home state is located may be the first chosen for study, or a geographical order may be used. One classification may be: New England; Middle Atlantic States; North Central States; Southern States; Western States; Possessions of the United States.

The presentation of these large units of study may take various forms, depending on the educational theories and practices of the teacher. The tools at hand are excellent textbooks, globes, wall maps, workbooks, supplementary geographical readers, and library reference books. Whatever the method of approach, the geography work of the elementary school will usually be concerned in answering three simple questions about the people of the region which is being studied: 1) Where do people live? 2) Why do they live there? 3) How do they live there?

If these three questions are correctly answered in simple detail, the pupils have secured fundamental knowledge of the geography of the region, whether the method be named the problem method; project method; type study method; journey method; unit method; or self-activity method. If the teacher is especially interested in featuring any one method, the best features of other methods are

at hand to aid in the task. That method of presentation is best which enables the individual teacher to aid pupils most effectively in the learning process.

As the work of the year proceeds, opportunity for the use of comparison is enlarged and should be used as a means of interpreting regions in relation to each other. In the study of Canada, comparison based on the facts set forth in the textbooks show that: (1) Canada is larger than Continental United States, but has only one-tenth as large a population. (2) The population of Canada is about the same as the population of New York State. (3) More than half of the population of Canada is found in southern Canada, in the same latitude as New England.

When South America is studied, comparison of South America and North America in their larger geographic aspects leads to a better understanding of both continents. Some of the items suitable for a comparative study of South America and North America are the following: area; population; mountain systems; lowland areas; large river basins; temperature; rainfall distribution; grazing lands; crop lands; forest areas and coal resources. By this comparative study of the two continents in the fourth quarter of the year, the years' work is unified because previous knowledge is used for constructive learning experiences rather than for purposes of review as such.

The study of the year deals with a greater north-south extent of inhabited land area than is found elsewhere in the world. The most northern habitat of man is northern Greenland where the Polar Eskimos live, and the most southern land occupied by man is the Island of Tierra del Fuego south of the Strait of Magellan. The year has thus brought to pupils the full latitudinal extent of the inhabited lands of the earth.

EASTERN CONTINENTS

The textbooks dealing with the Eastern Continents bear various titles, among them: *Eastern Hemisphere; Nations Beyond the Seas; Foreign Lands and Peoples; Our Neighbors Across the Seas; Old World Continents.*

A study of the Eastern Continents is a continuation of the regional geography studied the previous year. Pupils learn the simple geographic facts and relationships of Europe, Africa, Asia, and Australia, and relate them to the earlier study of North America and South America.

The nearness of Europe to the Americas, and the fact that the peoples and the civilization of both North America and South America are derived from Europe, make Europe the starting point in the year's study. European interests lead directly into Africa which is almost wholly under control of European nations; into Asia where Russian, British, and French interests dominate large areas and large populations, and into Australia whose people today pride themselves on being more British than the people of Great Britain.

The interested teacher will be alert to discover avenues of approach that appeal to children. International understanding need not be stressed as an item of study. International understanding comes as we learn of the traits common to people everywhere. It comes with an appreciation of daily activities under a variety of natural conditions that influence the progress of people. Recent geography textbooks emphasize in a wholesome manner the fundamental facts of human life as related to the natural resources of a region.

These two volumes of regional geography give a first view of the lands and of the peoples that is fundamental to an interpretation of the world from any standpoint, whether geographic, historic, economic, social, or from any other point of view.

The United States in Its World Relations

In the junior high school and upper grades, opportunity is offered for the presentation of geography from a new and more advanced point of view. Pupils have an elementary knowledge of the regions of the world. With this foundation they are now enabled to relate the United States to other countries and give a unified concept of the world as a whole, as a community of nations.

The recent geography textbooks have provided for a year of geography at the junior high school level, without repetition of subject matter and method of treatment used in previous years. This fourth volume of the recent series of geographies marks the chief departure from the earlier two-book, two-cycle series of textbooks, and from the specific one-cycle plan.

Some of the volumes for this year's study are: *Nations as Neighbors; Modern Business Geography; Our World; United States Among the Nations; Our Industrial World; World at Work; World Geography; The United States in the Modern World; The Earth and Mankind.*

A classroom library with a copy of these final volumes of the various series of geography textbooks makes a valuable reference library on the geography of the world.

The schools of today are provided with the best geography textbooks ever prepared for American schools. The changes wrought in the presentation of geographic material thru school textbooks during the past decade are more significant than the changes wrought during the preceding half century. A common thread of subject matter and method of procedure runs thru many of the series, but without stereotyped organization and presentation.

AN OUTLINE IN POLITICAL GEOGRAPHY*

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The National Council of Geography Teachers has struggled with the problem of a course in Political Geography adapted to high school mentalities for a number of years. It is the general belief that such a course is desirable. It is probably no breach of trust to say that the present Committee on Political Geography for High Schools is traveling a street with a dead end.

The blockade is the lack of any easily obtainable primary and secondary reference material which may be used as basal textual matter. If such a course is to be offered by the National Council, it must be supplemented by some textbook, or better textbooks, that will present in an intriguing manner the principles to be established and that will be flexible enough to be adapted to the changing conditions of world politics. I have faith that there may yet be a way out. The field offers valuable materials which ought in some way to become a part of the background for political activity.

TYPE OF PRESENTATION

In the first place I doubt the advisability of presenting the subject by using the country as a unit. This approach has been used in earlier geographic study and there are two dangers that might befall; first, that the teaching degenerate into just another presentation of a country, and second, that the recipient's mind be prejudiced at the outset by the apparently prosaic character of the work. After

* Presented at the Philadelphia meeting of the National Council of Geography teachers, December, 1934.

establishing the general elementary principles the subject may be rounded out by their application to a selected list of political regions.

USE OF CURRENT ISSUES

In the second place it seems obvious that a course in Political Geography cannot be based on current issues since they are ephemeral in their nature. At the same time these issues must be an integral part of the course otherwise the course will not meet the demands set down for it. An academic course, with little reference to present-day conditions, is not advocated. The topics of the day might easily serve a motivative purpose and certainly they should be extensively used to illustrate such principles as are developed. Furthermore the principles developed should be of such a range as to allow the consideration of all large current issues which are in any broad way related to this branch of geography. For example, last year Ibn Saud was prominent in the daily press. His activities were extensive and his personality romantic so that a brief review of his life was sufficient to elicit a deep interest. Here was an opening and Ibn Saud besides being an exponent of the holy of holies of Islamism and an aggressor in the land of the Hedjas, became a motivating agent for the study of certain politico-geographic principles in southwestern Asia. Using him thus in a course of study both the principles and the issue of the day were covered. The outline should not be so rigid as to preclude such an occasion. Now Ibn Saud, so far as the head lines of the newspapers are concerned, is no more, but surely some motivating agency will arise as interesting even if not so picturesque as this self-appointed defender of the faith of Islamism.

COURSE MUST BE SIMPLE

Again, a course in Political Geography for high schools must not be overly involved but relatively simple. The course will be too brief to gain an intimate knowledge of the background of many issues and any attempt to explain these without such a background will smack of superficiality. In other words there are issues of political geography too intricate to be included in a brief course for high schools. To decide what should be left out and what issues should be included must be left largely to the individual instructor as far as it is feasible to do so without destroying the integrity of the course.

The brief annotated outline which follows is merely suggestive. The order has no meaning and the topics are not expanded beyond the point of a simple explanation.

I. BOUNDARIES

If we assume that a generalized definition of political geography is the study of a people in a place, the place becomes of interest and as population increases the limitations of place important. The literature of boundaries is voluminous and opinions concerning them differ radically and it seems almost important, if a proper balance is to be maintained, to use the case method at this stage. The Argentine-Chile boundary settlement is a safe beginning. It opens as a subsidiary problem the relationship of mountain crests and water divides, and its conclusion marks a definite advance in the mental attitudes of the conflicting parties. If materials are not readily available any other may serve. The indefiniteness of the Arabian tribal boundaries illustrates conditions which obtain in sparsely settled areas and out of which many boundary disputes have arisen. The limitations of place which is hardly an issue in the early stages of locations become, as population increases, a problem of importance. Discussions of types of physical boundaries are not very satisfactory as much has been said for and against each and the proponents and opponents of each type of physical boundary base their arguments on man as a fighting animal or man as a peace loving mortal.

II. MIGRATIONS

People are mobile and the place for one reason or another does not always permit continued residence. One may use here as a background a chapter from Semple's "Influences of Geographic Environment."[1]

In this place there may be considered also the immigration problem of the United States from the days of open immigration down thru the three restrictive measures inaugurated between 1921 and 1927. This leads naturally and easily to the study of conditions in three of four European countries where emigration has been excessive. Such additional studies as ethnic mixtures, cultural modifications during migration, mobility of peoples and Huntington's selective migration may be introduced.

III. RACES OR PEOPLES

It is questionable whether or not the anthropological classification of races adds anything to an understanding of peoples. If not carefully introduced, it is a distracting and even a harmful thing

[1] Chapter IV, 74-128.

since it emphasizes unlikenesses which are the basis of racial antipathies.

Some writers[2] introduce a brief classification, and it must be said that as long as such words as Nordic, Mediterranean, Mongoloid, etc., appear in our literature it is better to use them in the class room in order to propagate the right attitudes than to leave the pupils free to grasp some more commonly accepted but more harmful views.

The emphasis may be placed on heterogonous populations such as are found at the world's great cross-roads, Honolulu for example. The melting-pot idea widely applied[3] is helpful, and the evidences of admixtures and assimilations rather than separations lighten somewhat the ideas of racial feeling.

IV. Nationality

This is rather a loosely used term but it includes the habits of mind and body that a people in a definite place develop. It is expressed in epic poems, in songs, and in the lives of the national heroes. Writings[4] are conflicting but notwithstanding an appreciation of national feeling or patriotism may be gained. Here also is a time to discuss self-determination and separatism, as well as to introduce such determinants of nationality as color, race, language, religion, despotic power, economic convenience and congeniality.

V. National Trusteeship

The growing feeling of the world that possessions, as they have been called, are not to be held as things that are owned but are accepted as responsibilities may be the basic thought. England's release of Egypt, its contemplation of similar acts in India, and the ever imminent independence of the Philippines furnish motivating agencies. A backward look to gain the steps to the present-day attitude might consider the marauders, plunderers, depopulation movements, tribute taxes and the insistences on ownership of by-gone days. In the same connection there may be studied the relationships of advanced peoples toward backward peoples, how the former have snubbed the latter, and particularly how they have helped them. The

[2] Jefferson: Man in Europe. New York. 1926.
Fleure: The Peoples of Europe. London. 1922.
Brown, Howarth and MacFarland: The Scope of School Geography. Oxford. 1922.
[3] Jefferson: Recent Colonization in Chile. New York. 1921.
Fairchild: Melting-pot Mistakes.
[4] von Engeln: Inheriting the Earth. New York. 1922.
Powers: The Great Peace. New York. 1918.

topic opens the wide field of colonial policies among the various nations of the world.

VI Culture of Nations

In order to avoid the indefiniteness which general statements must convey it is advised to use here Jefferson's[5] idea of indexes of culture based on schooling, commerce, mails and railroads. Certain salutary and helpful mental states have been gained concerning the nations of the world by the comparison which this mathematical definition of culture affords.

VII. The Standard of Living

As under the previous heading a mathematical expression appears to furnish a better estimate of this idea than generalizations. It has been stated[6] that the reasonable maximum for the world's future population is a person for each 2.5 acres of sustenance yielding land. With this as a basis the standard of living may be obtained for various countries from the standpoint of acres per capita. This assumes, of course, a self-sustaining people. Peoples who devote a portion of their energy to occupations which produce a surplus, increase by purchase of goods, their sustenance spaces. Without elaborating this idea, attention may be directed to the early pages of the World's Agriculture[7] which tabulates for a number of countries the acreage of cultivated lands per capita and the estimated average production of important foods expressed in calories per capita.

VIII. Conclusion

Space forbids the expansion and the introduction of other topics. Others may be as important. Nationality has been stressed but the larger problems of internationalism are only indirectly assumed. The protection of political units, in tariff walls, armaments and so on, the expansion of their well-being and the stages of democratization have been omitted. No book is more fitted to help the teacher than Bowman's, The New World.

[5] Jefferson: The Culture of the Nations. *Bull. Amer. Geog.*, XLIII (1911), 241-165; also in his Man in Europe.

[6] E. M. East: Mankind at the Crossroads.

[7] Finch and Baker: p. 8. Washington 1917.

INTRODUCTION OF THE MAP TO FOURTH GRADE CHILDREN

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Contact with many children of all grades, over a period of several years, has proven rather definitely that the greatest weakness in the teaching of geography lies in the presentation or introduction of the map to children just beginning formal work in geography. The teacher too often assumes that the child learns the map incidentally and confidently proceeds to teach geographical facts without an adequate foundation.

To the child beginning formal work in geography, the map is a new and very confusing language. He must be introduced to its strange symbolism thru a study of the realities in nature which each symbol represents. Lines marking rivers, circles or triangles for cities, shading for mountains, mean nothing to the child unless looking at them, he can visualize a real river, a real city, or a real mountain. To give the child the right start in his geography, the teacher must, therefore, see that the child has a concept for each of the geographical factors represented on the map. It is only after he has gained these that he is ready to learn map symbols, and the use of the map.

The following lesson was planned as a demonstration lesson for a recent meeting of geography teachers, to show how geographic factors can be taught in reality and then translated into the symbolism of the map. The lesson was planned for fourth grade because in this particular district formal geography is begun in fourth grade.

INTRODUCTION OF MAP TO FOURTH GRADE CHILDREN

AIMS

1. To introduce a relief map of North America to the class
2. To build thru a field trip concepts for the more common terms of physical geography such as rivers, bay, lakes, valleys, shore, plateau, etc.
3. To show why their representation on a map must be symbolical
4. To attach meaning to the symbols of the map
5. To teach the correlation between direction out doors and direction on a map
6. To show why maps are hung on walls

MATERIALS

Museum Grounds (Any local environment will serve as well)

1. Creek—river, bank, flow of water and slope of land, fall, peninsula, harbor, island

2. Head of steps of peony garden—valley, river valley, plateau, plain, slope
3. Upper Lily Pond—lake, bay, harbor, coast, coastal plain, plateau, mountains
4. Sun
5. Mt. Penn and Neversink Mountain
6. Relief Map of North America

PROCEDURE

A. Introduction
   1. Do you like geography?
   2. What are some of the things we speak about in geography?
   3. Did you see any geography on your ride over to the museum?
   4. What did you see during your summer vacation?

   Try to have the children mention more common physical factors and so lead into grounds to look for each in miniature. Prepare children generally for field trip, so that they will be ready to see the physical factors pointed out.

B. On Grounds
   1. Find direction with sun.
   2. At the creek discuss river, flow of water, slope of land, island, etc. Show peninsula and introduce term.
   3. From the top of the steps in peony garden discuss plain, valley, slope, and plateau. Notice width of creek from steps and introduce the affect of height on the view. (Height widens the horizon and reduces detail.) The horizon might be widened enough to see all of North America, if our vision were keen enough.
   4. At the lily pond introduce lake, harbor, bay, coast, and coastal plain. Review plain, slope, plateau, and mountains.

C. In the children's room place the map of North America on the floor according to cardinal directions. Explain position on the floor to children. Discuss effect of height on the appearance of cities. Have children find cities on the map. In the same way have children find symbol for each of the physical factors found during the visit on the grounds. Show how coastal lowlands, plains, plateaus, and mountains are shown.

   How would a river look from the sky? Discuss source and mouth of the river and lead into section of film of "Irrigation" showing development of a river. Before leaving the children's room discuss reasons for hanging of maps and stress again actual directions.

   Tie up with bus ride home.

DESCRIPTION OF LESSON AT THE MUSEUM

A. Thru the introduction, the children were led to name the physical factors known to them. This furnished a logical lead into the grounds and prepared a background for the proposed field trip.

B. On the grounds the field trip was begun by finding direction by means of the sun and noting the direction of travel thru the grounds. (This point is necessary to the lesson so that direction in space will be properly correlated with the cardinal points of a hanging map.)

In the creek the children found a fairly large island and described it. They discussed the flow of the water and its relation to

the slope of the land. The creek was compared with the Schuylkill River in order to establish a truer concept of the size of rivers. A perfect little peninsula gave an excellent opportunity to introduce the term, since it was new to the entire class.

The class next traveled west to the peony garden, from the steps of which the children saw plains, slopes, valley and plateau. They compared the elevation of these with the mountains of the background. Since this particular valley is drained by the small stream used earlier in the lesson, it also afforded an excellent illustration of a river valley. The children noticed that height and distance influenced the apparent size of the creek. They discovered that height widened the horizon and reduced detail, and judged that, given eyes strong enough to see, they could rise so high that the horizon would be wide enough to see all of Reading, Pennsylvania, and even all of North America.

At the lily pond they found a lake, bay, harbor, coast, coastal plain. The conditions here favored a review of plain, slope, plateau, and mountains.

C. The children now returned to the class room to transfer their knowledge to the map.

In the class room, the map, properly oriented, was placed on the floor, with children on their knees around it, and the lesson became an interesting game. Land and water masses were first found and then, reviewing the effect of height on detail, the children decided that cities became mere dots and as such were found on the maps. As the children named the physical factors found in the grounds, their symbols were found on the map. Even mountains and lowlands could be located without the legend. As the rivers were found their direction of flow was noted until the terms "source" and "mouth" could be introduced.

After the map had been really introduced, the convenience of keeping it on the floor was discussed. The children decided that hanging it on the wall would conserve space. After the map was hung, the class discovered that it was no longer oriented. North did not point north, but up into space, while south was just as wrong. Daily drill for several days on direction in space would be necessary to establish a true sense of direction and eliminate confusion.

This lesson served merely as an introduction. To make it a part of the children's thinking will require additional work carried on intensively over a period of several days, depending on the group, and incidentally thruout all the years in which geography is studied.

The lesson could be followed by the location of local factors on a political-relief map. The Blue Mountains in the vicinity of Reading could be located as a part of the Appalachian Range. Vacation regions of the individual children could be located and impressions strengthened by pictures, slides, etc.

A STUDY OF THIRTEEN STANDARD GEOGRAPHY TESTS

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Questions often asked are, "Do standard tests in geography measure knowledge of place geography predominantly or do they test equally all phases of geography? What subject matter do they test? Do they test knowledge of factual material or interpretative ability? In what forms are the questions written?" This study is an attempt to answer these questions.

Thirteen standard tests, all that were available for analysis, were used. Counting all their forms, there were one hundred seventy-three distinct tests examined in this study. The standard tests used were the following:

1. Hahn-Lackey Geography Scale
2. Gregory-Spencer Geography Tests
3. Witham's Standard Geography Tests
4. Posey-Van Wagenen Geography Scale
5. Buckingham-Stevenson Information—Problem Tests
6. Buckingham-Stevenson Place Geography Tests
7. Branom's Geography Tests
8. Gregory-Hagerty Tests
9. Stevenson-Ridgley-Shipman Tests
10. Ridgley-Russell-Harr Geography Tests
11. New Stanford Geography Tests
12. Orleans Geography Tests
13. Indiana Standard Geography Tests

In an attempt to analyze the tests to find facts that would help answer the questions stated above, every question in the tests was read and classified according to (1) whether it measured knowledge of place geography, economic activities, or other forms of subject matter, (2) whether it measured simple recall of factual material or interpretation of facts, and (3) the form the question assumed.

The classification is the writer's own and no attempt was made to eliminate the personal equation. The results of the classification are seen in Figures 1 and 2.

THE DISTRIBUTION OF SUBJECT MATTER IN THE TESTS.

From Fig. 1 we see that more questions in the tests call for locations than for any other type of information. There are 1872 questions requiring knowledge of locations. The locations called for most are those of cities, countries, rivers, states or provinces, and mountains. There are 745 questions about the locations of cities, 269 about the locations of rivers, 126 questions about the location of states and provinces, and 123 questions about the location of mountains.

The topic that stands next to locations in importance in the tests is the economic activities of man, 799 questions. The activities in order are agriculture, 272 questions; commerce and trade, 130 questions; manufacturing, 125 questions; mining, 118 questions; transportation, 69 questions; fishing and trapping, 34 questions; grazing, 29 questions; and lumbering 22 questions.

Standing third in number of questions are those about cities. There are 582 of these. Of this number, 194 ask for the product for which a given city is well known; 189 require the child to tell what country, state, or province a given city is the capital of; 46 call for the names of seaports; 38 ask for imports or exports of given cities; only 30 require reasons for the growth, size, or location of cities.

Physical features is fourth with 278 questions. Of these, 104 are about rivers; 52 about mountains; 34 about surface features of countries or states; 10 about islands.

The fifth bar in the graf shows that 224 questions are asked about countries and states. Questions calling for the leading products of a given country or state occur 65 times; why a given country is prosperous, 16 times; why a country is backward, 13 times; form of the government of a given country is asked for 10 times.

There are 209 questions concerning "size," they ask for the largest city, country, state, river, continent, planet, island, ocean, mountain, desert, sea, or a comparison of the size of two cities or countries as, "Which city is larger, New York or Chicago?" The size of a given city is asked for five times as much as any other topic involving size.

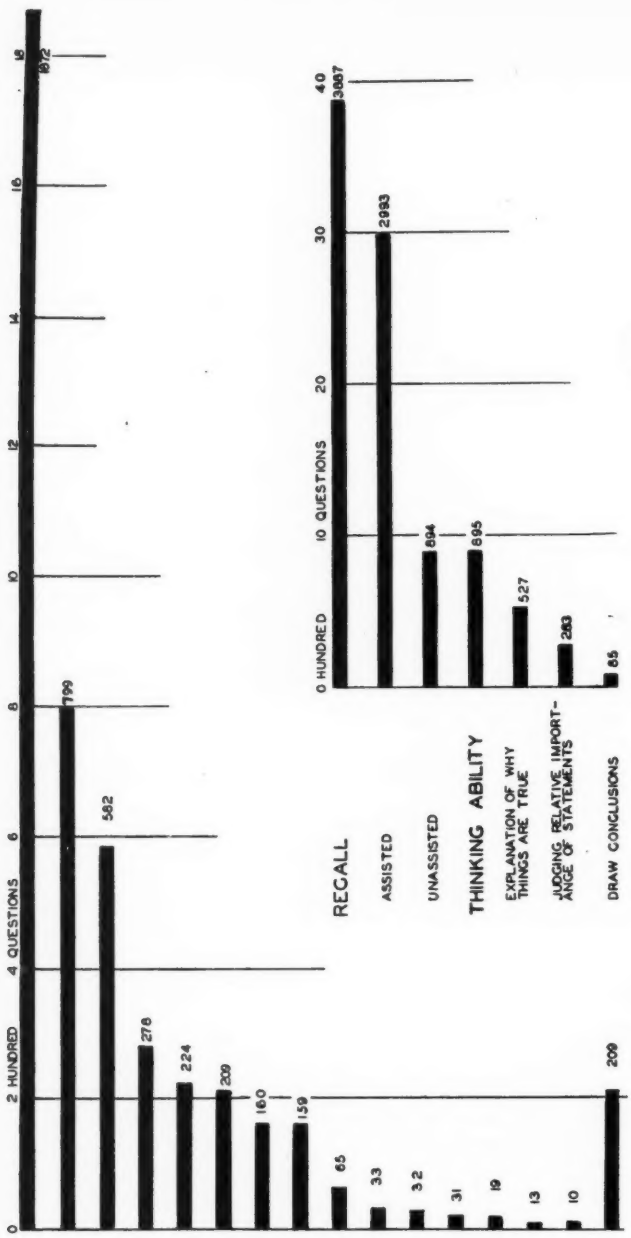

FIG. 1

FIG. 2

FIG. 1. Distribution of subject matter in the tests.
FIG. 2. Comparison of factual content and interpretation found in the tests.

From the graf we also see that there are 160 questions about climate. Of these 56 are about rainfall, 46 about temperature, and 38 about winds. The other questions use the general term climate.

The eighth bar in the graf reveals that 159 questions were about people. In this group are found such questions as these: "Why do so many people live in a given part of a country? Name the state or country having the greatest density of population. Why a given country has so few people? To what race do a given people belong? What is the chief food of a given people? What is the language spoken by a given people?"

The graf shows that 65 questions are asked about plants and animals, 33 calls for explanation of terms, 32 ask about seasons, 31 about zones, 19 about length of days, 13 about longitude and latitude, and 10 about earth movements.

There is a miscellaneous group of 209 questions that varied so widely in subject matter content that they could not be classified in any other way.

Thus we see that most of the questions in the tests involve subject matter concerning locations, economic activities of man, cities, physical features, countries and states, size, climate and people.

Do the Tests Measure Recall of Factual Material or Interpretation of Facts?

Fig. 2 shows 3887 questions requiring the recall of factual material as compared with 895 questions requiring thinking ability. The number of questions requiring the recall of factual material is four times as great as those requiring thinking ability or interpretation. Thus it is evident that interpretation is measured to some extent in the tests but factual material gets the major emphasis. Fig. 2 also indicates that of the 3887 questions requiring the recall of factual material, 2993 are of the assisted recall type, and 894 are of the unassisted recall type. Of the 895 questions requiring thinking ability, 527 ask for the explanation of why certain things are true, 283 require the child to judge the relative importance of statements, and 85 give statements from which the child is to draw conclusions.

Illustrations of each of these types of questions are the following:

1. Unassisted recall:
   Name four islands in the West Indies.
2. Assisted recall

Place a cross before the name of the capital of the state named at the head of the column

New Mexico	Oregon
Santa Fe	Portland
Albuquerque	Astoria
Las Vegas	Eugene
Silver City	Salem

3. Explanation of why certain things are true

Why is Pennsylvania so important in iron manufacturing?

4. Judge relative importance of statements

How has the position of Denmark, Holland, and Belgium helped to keep them independent?

(Check the correct or best answer)

They are too far north to make desirable colonies of larger countries.

Great nations like to keep small nations between themselves and their enemies.

Their land boundaries are almost wholly on low plains.

They are densely populated and carry on commerce with their neighbors.

5. Draw conclusions

In South Carolina and Georgia only the coarser kinds of cotton cloth are manufactured in large quantities, while in Massachusetts the finer goods are manufactured.

In which state would you expect the factory to pay the highest wages?

WHAT IS THE FORM OF THE QUESTIONS?

An examination of the form of the questions shows that there are questions of the multiple choice type, interrogative sentences, imperative sentences, questions which require items to be located on given maps, questions of the true-false type, matching exercises, and completion type.

SUMMARY

As a result of this study the following conclusions may be drawn.

1. The tests measure both (a) place geography and economic geography, with major emphasis on place geography; and (b) subject matter content and interpretation, with major emphasis on subject matter content.

2. The subject matter found most often in the tests concerns locations, economic activities of man, cities, physical features, countries and states, size, climate, and people.

3. The questions in the tests are (a) of the new type: multiple choice, true-false, matching, and completion; (b) of the traditional type, interrogative and imperative sentences; and (c) those which require items to be located on maps given in the texts.

EDITORIAL NOTES AND NEWS

According to present plans Europe and Africa are to be connected by a tunnel under the Straits of Gibraltar. The tunnel is to be twenty miles long and will drop beneath the Straits at a point just east of Tarifa in Spain and emerge near Point Altares in the International Zone and east of Tangier. The maximum water depth along this route is 900 feet. Both France and Spain are interested in the undertaking and the tunnel will carry French and Spanish rail lines, and a lane for motor traffic. Work on the tunnel is to be started in 1936 and it is to be completed by 1940. The estimated cost is $45,000,000.

On July 1, the name of the Alaskan Agricultural College and School of Mines at Fairbanks was changed to the University of Alaska, according to an interview from the president, Dr. Bunnell, quoted in a recent issue of the *Anchorage Daily Times*. Last year it had an enrollment of 288 students, 65 of whom were taking the short course. The college has a self-sustaining farm, which supplies the college with vegetables and meat and at the same time provides employment for students making their way thru school. The administration is looking forward to increased housing facilities to accommodate an expected increase in enrollment.

A list of materials useful in teaching geography is available at nominal cost from Sam Houston State Teachers College, Huntsville, Texas. The list was prepared by Harriet Smith and Adelphia Mitchell, and was published as the February, 1935, issue (Vol. 12, No. 3) of the *Monthly Review*. The charge is only fifteen cents.

Beginning May 1, 1935, six-hour forecasts will be issued by ten Weather Bureau Centers over the teletype hook-up maintained by the Bureau of Air Commerce along the airways of the United States. Each airport will receive enough information for the preparation of a weather map of the United States, as well as conditions in a wide area surrounding it. The usual meteorological observations at the airports will be supplemented by those from airplanes, pilot balloons, ocean vessels, as well as from certain stations in Canada and Mexico.

DR. WALLACE W. ATWOOD gave two addresses at the annual meeting of the Alabama Council of Geography Teachers held last March at Birmingham, Alabama, in conjunction with the Alabama Education Association meetings. Very large attendances were reported.

The former Chinese Eastern which was recently transferred from Russia to Manchukuo will now be known as the North Manchuria Railway. It will be remembered that this railroad is the short cut from Chita to Vladivostok, avoiding the all-Russian route via the Trans-Siberian Railway along the great bend of the Amur River.

DR. HENRY M. LEPPARD of the University of Chicago, accompanied by Mrs. Leppard, spent the last year making field studies in western Europe. His most detailed work centered in the seaport districts. The utmost cordiality and kindness was extended them thruout their travels which were made in their own car.

DR. ROBERT S. PLATT of the University of Chicago, together with Mrs. Platt, are spending the next six months in a regional reconnaissance of the Guianas, northeast Brazil, the Amazon Basin, the plateau of Peru and Ecuador, and parts of Panama. Detailed sample unit studies will be made thruout the area which will be traversed over land, water, and air routes. This will conclude the reconnaissance and detailed field studies previously made by the Platts in their several trips to Latin America.

INTEREST-STIMULATING DEVICE

Locating Stamps Geographically

Owing to the appeal stamps have to the collecting instinct, their use by pupils and teachers has found a ready response. However, it is evident that altho pupils may have collections of stamps representative of the various countries, often they are ignorant of the geographical location of the countries that the stamps represent.

This ignorance is due to the improper use or placement of stamps by pupils and teachers. On the one hand, teachers should display stamps by placing them on the maps of the countries that issued the stamps. On the other hand, the pupil should construct or obtain albums that consist of maps on which the stamps are to be placed, preferably near the location of the capital of the particular country or environment of the thing portrayed on the stamp.

The pages of albums of this nature may be obtained by using mimeographed maps, or maps drawn by the pupils. The album could consist of a page each for the United States, Central America, South America, Africa, Europe, Asia, the Pacific Islands, and Canada.

An arrangement of maps for the placement of stamps in this manner is especially advantageous in that pupils may use their ingenuity in the organization of their collections. Some may wish to portray the rulers and presidents of the various countries; others may wish to show the animals, historical sites, or products. For example, the stamps on a map of the United States could show the locations of the various parks recently shown on one of our issues. This is also true of the location of the historical sites and birthplaces of characters portrayed on our stamps. Stamp displays of this nature would be more varied and much more interesting. Furthermore, it is evident that stamps used in this manner are much more likely to be productive of greater educational values.

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NOTE

Send descriptions of your interest-stimulating devices to the JOURNAL. We will be pleased to pass them on as an aid to others, thru the pages of the JOURNAL. There must be hundreds of teachers who have worked out these aids in teaching. Make your description brief, clear, and exact so that another teacher may follow your directions. EDITOR

GEOGRAPHICAL PUBLICATIONS

George J. Miller and Almon E. Parkins. **Geography of North America.** (Second Edition) XVIII and 632 pp.; 228 maps, diagrams and other illustrations; selected list of reference material and index. John Wiley and Sons, Inc., New York, 1934. $4.50.

When the two well-known geographers, Miller and Parkins, gave to students the Geography of North America, in 1928, they made a notable contribution not only to the specific area discussed but to the general field. The second edition retains the logical arrangement and scholarly presentation maintained in the first edition, but it is more than a reprinting as much of it has been rewritten and modified.

The contents consist of four parts. Part I, "North America as a Whole," is made up of two chapters as in the first edition, but the discussion of "North America as a Home for Man" has been considerably amplified. Part II, "The United States and Alaska," has eighteen chapters which is one less. This is due to a rearrangement of material in the chapters which treat of the North Central Section. A much fuller discussion of soils has been included in the revision. Part III, "Canada and Newfoundland," contains five chapters—one general, and four given to regional discussions. Part IV, "Mexico and Middle America," has three chapters—two of which pertain to Mexico and one to Central America and the West Indies.

In the first two chapters of the book, which deal with the North American continent as a whole, the authors have taken up the major factors which influence the occupancy and utilization of the land. Here the natural environmental factors and human factors are briefly but well treated in their relationships to the present density of population and possible future capacity for supporting a larger number of people. Recognizing its importance, a whole chapter is given to a discussion of the climate of the continent.

The major portion of the book, about four hundred pages, is given to a discussion of the resources and industries of the United States—first for the country as a whole thru topical study and then in more detail by regions. Interest is added to the regional studies by the inclusion of a number of "selected type" areas such as Plymouth Co., Mass., The Camden Trucking Area, the diversified farming in Lancaster Co., Pa., and many others. The detail given in these descriptions arouses interest but the teacher must make it clear that they are "selected" regions and only in part "typical" since there is no other area just like any one of them. Used as they are intended by the authors, however, they give a much clearer insight to the larger regions of which they are a part and at the same time suggest a basis for detailed studies of selected local areas. Alaska, "a land of retarded development," is treated historically, statistically and regionally and is interestingly compared to Sweden and Finland as a place for man to live and make a living.

Ninety pages are used in discussing the resources and land utilization in the Dominion of Canada and Newfoundland. Emphasis and space are rightly given to the southern part where nearly all of the people live. Physiographic and economic regions are used in much the same manner as in the treatment of the United States. In the remainder of the book Mexico receives most attention, altho space is given to Central America, the Canal Zone and the West Indies. The book is well illustrated thruout. There are many fine photographs and a large number of valuable black and white maps, curves, and diagrams which are effectively used to show location and relative resources and production.

In the preface the authors state that "Some students have a tendency either to forget the earth upon which man lives in their enthusiasm to describe what man does, or forget man in their enthusiasm to describe the natural landscape." The authors have attempted to treat both the physical aspects and the human factors in such a way that the student may evaluate their relationship. In this they have very largely succeeded and

it is in this "balance" of treatment that we find one of the many reasons for commendation. The volume is exceedingly valuable "as the starting point for a study of the continent" and a credit to the authors who have done so much for the development of the best in geography.

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R. Zon, O. B. Jesness, Wm. Anderson and Others. **Land Utilization in Minnesota.** 302 pp., 48 figs., 56 tables. University of Minnesota Press, Minneapolis, 1934. $1.50.

O. B. Jesness, R. I. Nowell and Associates. **A Program for Land Use in Northern Minnesota.** 352 pp., 46 figs., 89 tables. University of Minnesota Press. 1935. $2.50.

The first of these books is the final report of the Governor's Committee on Land Use. It is by several professors of the State University and is a scholarly exposition of the general situation. It makes obvious the need for planning, especially for the cut-over northeastern counties. These counties have been almost completely stripped of their merchantable timber and many areas have been repeatedly burned over, even to the extent of the destruction of the soil humus. These counties have been the world's largest source of iron ore, but the supply of high-grade ore is being depleted so rapidly that it is predicted that it will be practically gone by 1960. Many people have tried to farm in northeastern Minnesota, but because of unfavorable climatic and soil conditions, most of them have not succeeded in competition with more favorable areas elsewhere. A large share of northern Minnesota is tax delinquent or has already reverted to public ownership. The population, aside from Duluth, is decreasing, and it would necessarily decrease greatly except for the large federal and state expenditures for relief for a large share of the population, those who cannot under present conditions make even a subsistence livelihood.

Altho Minneapolis, St. Paul, Duluth and some lesser cities are still growing, the indications are that Minnesota will increase only slightly in population. The facts that the whole nation is approaching a stationary population and there seems to be little prospect of large regular future exports of foodstuffs, lead to the conviction that there is no justification for the use of very poor land for crops, but that such land in northeastern Minnesota should be devoted chiefly to forests and recreation. Altho during the past century the policy of the Federal and State governments has been to dispose of as much as possible of the land in their possession, this policy has proven a sad failure with respect to non-agricultural lands. A reversal has commenced, and should be continued until a large share of the formerly forested poorer lands are in state and national forests.

The second of these books considers in some detail the fourteen northeastern counties, discussing the present use of the land in each and showing on rather large scale maps a provisional classification of the land for future use. A large share of the area should be returned to forest altho more than a million acres has been so badly damaged by fire that reforestation will presumably require centuries. A system of zoning, prescribing the use of land and limiting residence to certain specified areas is also recommended. Many struggling would-be farmers should be removed to more favorable areas. Many present townships and some counties should be consolidated to reduce governmental expense.

These two volumes are highly constructive and reflect credit upon the State and University. They should be studied by all who are interested in land planning in cut-over areas.

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